This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Transplantation				
Graft-versus-host disease (GvHD)	DNA (cytosine-5)-methyltransferase 1 (DNMT1); forkhead box P3 (FOXP3)	<p>A study in mice and in cell culture suggests that hypomethylating agents could help increase levels of T_{reg} cells and treat GvHD. In cultured human and mouse T cells, hypomethylating agents Vidaza and Dacogen induced expression of the T_{reg} cell transcription factor FOXP3 compared with no treatment, which triggered cells to differentiate into anti-inflammatory T_{reg} cells. In mouse models of transplant-induced GvHD, treatment with azacitidine resulted in 100% survival compared with only 13% for buffer treatment. Next steps include identifying genes downstream of <i>FOXP3</i> that are upregulated by the hypomethylating agents and evaluating dosing protocols for azacitidine in GvHD.</p> <p>Celgene Corp's Vidaza is approved to treat myelodysplastic syndrome (MDS) and acute myelogenous leukemia (AML). Dacogen from SuperGen Inc., Eisai Co. Ltd. and Johnson & Johnson is approved for MDS.</p>	<p>Provisional patent filed covering method for generating T_{reg} cells; available for licensing from the Washington University in St. Louis Office of Technology Management</p> <p>Contact: Bradley J. Castanho, Washington University in St. Louis, St. Louis, Mo. e-mail: bjcastanho@wustl.edu</p>	<p>Choi, J. <i>et al. Blood</i>; published online April 27, 2010; doi:10.1182/blood-2009-12-257253</p> <p>Contact: John F. DiPersio, Washington University in St. Louis, St. Louis, Mo. e-mail: jdipersi@dom.wustl.edu</p>
<p>SciBX 3(23); doi:10.1038/scibx.2010.713 Published online June 10, 2010</p>				